

Gas-

period:

Give 3 characteristics of a gas- 1

2.

(using kinetic theory) 3.

Boyle's Law-

101.3 Kpa = _____ mm Hg = _____ atm.

S.T.P. -(Give units)-

Charle's Law-

Gay Lussac's Law-

_____ is proportional to the average kinetic energy of the particles of a substance.

Kelvin Temp. Scale-

Combined Gas Law-

Avogadro's Hypothesis-

Molar volume-

Molar volume at STP-

compare Ideal gases and real gases

Ideal Gases	Real Gases

What is R?

Problems

<p>1. Convert 5.1L of CO gas at STP to moles.(ans)</p> <p>2. Convert 20.7mL of fluorine gas at STP to moles.(9.24 x 10⁻⁴ mol)</p>	<p>3. Freon is a CFC used as a coolant in air conditioners and refrigerators. If 500mL of freon at 1.5atm and 24° C is compressed to 250mL at 3.50 atm, what is the final temperature of the gas?(74° C)</p>
<p>4. What is the volume of 1.0 g of carbon dioxide trapped in bread dough at STP? (Ans)</p>	<p>5. Find the molar mass of 6grams of a gas that occupies 27L at 150KPa and 30° C.</p>
<p>6. In a cylinder of a diesel engine, 500 mL of air at 40.0 °C and 101.3 KPa is compressed just before the diesel fuel is injected. The resulting pressure is 3.54 x 10³KPa . If the final volume is 23.0 mL, What is the final temperature in the cylinder?</p>	<p>7. Find an example from p 439 for</p> <p>a) Boyle's Law</p> <p>b)Charle's Law</p> <p>c) Gay-Lussac's Law</p> <p>d)Dalton's Law of Partial Pressure</p>
Dalton's Law of partial pressures-	



Fill in the missing information:
In table:

_____ C ₈ H ₁₈ (g) + 25 O ₂ (g)----> _____ CO ₂ (g) + _____ H ₂ O(g)			
1 mol	12.5mol	_____	_____
2 mol	_____	16 mol	_____
1 L	12.5 L	_____	_____
8 L	_____	64 mL	_____
_____ L	5 L	_____ L	_____ L
250 mL	_____ mL	_____ mL	_____ mL
_____ L	_____ 10 L	_____ L	_____ L